

# HP

## Storage Essentials 5.0 for File Servers Guide



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## **Storage Essentials 5.0 for File Servers Guide**

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# About this guide

This guide provides information about using File SRM.

## Intended audience

This guide is intended for:

- Network Engineers
- Administrators
- Any one that needs to monitor and/or manage their file servers

## Prerequisites

Prerequisites for using this product include:

- Networking
- Storage Area Networks (SANs)
- The Common Information Model (CIM)

## Related documentation

In addition to this guide, please refer to other documents for this product:





- Online help for HP Storage Essentials
- HP Storage Essentials Integration Guide
- HP Storage Essentials User Guide
- HP Storage Essentials Application Guide
- HP Storage Essentials CLI Guide
- HP Storage Essentials Installation Guide

These and other HP documents can be found on the HP web site: <http://www.hp.com/support/>

# Document conventions and symbols

**Table 1** Document conventions

Convention	Element
Medium blue text: <a href="#">Figure 1</a>	Cross-reference links and e-mail addresses
Medium blue, underlined text ( <a href="http://www.hp.com">http://www.hp.com</a> )	Web site addresses
<b>Bold font</b>	<ul style="list-style-type: none"><li>• Key names</li><li>• Text typed into a GUI element, such as into a box</li><li>• GUI elements that are clicked or selected, such as menu and list items, buttons, and check boxes</li></ul>
<i>Italics font</i>	Text emphasis
Monospace font	<ul style="list-style-type: none"><li>• File and directory names</li><li>• System output</li><li>• Code</li><li>• Text typed at the command-line</li></ul>
<i>Monospace, italic font</i>	<ul style="list-style-type: none"><li>• Code variables</li><li>• Command-line variables</li></ul>
<b>Monospace, bold font</b>	Emphasis of file and directory names, system output, code, and text typed at the command line

-  **WARNING!** Indicates that failure to follow directions could result in bodily harm or death.
-  **CAUTION:** Indicates that failure to follow directions could result in damage to equipment or data.
-  **IMPORTANT:** Provides clarifying information or specific instructions.
-  **NOTE:** Provides additional information.

---

 **TIP:** Provides helpful hints and shortcuts.

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## HP technical support

Telephone numbers for worldwide technical support are listed on the HP support web site:

<http://www.hp.com/support/>.

Collect the following information before calling:

- Technical support registration number (if applicable)
- Product serial numbers
- Product model names and numbers
- Applicable error messages
- Operating system type and revision level
- Detailed, specific questions

For continuous quality improvement, calls may be recorded or monitored.

HP strongly recommends that customers sign up online using the Subscriber's choice web site at

<http://www.hp.com/go/e-updates>.

- Subscribing to this service provides you with e-mail updates on the latest product enhancements, newest versions of drivers, and firmware documentation updates as well as instant access to numerous other product resources.
- After signing up, you can quickly locate your products by selecting **Business support** and then **Storage** under Product Category.

## HP-authorized reseller

For the name of your nearest HP-authorized reseller:

- In the United States, call 1-800-345-1518.
- Elsewhere, visit the HP web site: <http://www.hp.com>. Then click **Contact HP** to find locations and telephone numbers.

## Helpful web sites

For third-party product information, see the following HP web sites:

- <http://www.hp.com>
- <http://www.hp.com/go/storage>
- <http://www.hp.com/support/>





# 1 Overview of File System Viewer

Your business is only as good as your storage infrastructure. You depend on data for the core functions of your business. The growth of your business or just maintaining day-to-day business activities adds even more data. The challenge is in knowing if your file storage infrastructure is growing in a managed, organized and efficient manner. Given the sheer volumes of data, obtaining this sort of information can be difficult.

With the industry's most versatile multi-threaded scanner which creates an information store about your storage system, the management software for file systems has been designed to scale to the needs of enterprise file systems.

Also, by combining file, logical and physical storage resource monitoring and reporting with active SAN management, this software provides a single integrated system for managing your entire file storage infrastructure.

It provides detailed analysis of your file storage in four key areas:

- **Composition – Aging**
  - Why are there files on a system that have not been accessed for more than six months?
  - Do we need hierarchical storage management or a store and delete policy?
- **Content – Extensions**
  - Are file systems being used properly?
  - Is there misuse of storage space?
  - If it is, then who are the offenders?
- **Consumer - Users, Groups, Applications**
  - Who is using how much space?
  - Is the usage planned?
- **Capacity - Used and Available**
  - What is the total available capacity?
  - How much is being used?

File System Viewer does a recursive lookup on the file system and stores the information in an embedded database. File System Viewer can scan files very quickly for several reasons because File System Viewer never opens the files and it uses a multi-threaded process. More than one process can be used at a time to scan the files.

Keep in mind the following:

- If you do not see information for the file server, verify the collector for the file server is running. You can verify the collector is running by clicking **Configuration > File SRM**. On the **Data Collection** tab, look in the Running? column. If there is a chicanery for the file server, the collector for that file server is running. See the topic, "Managing Collectors for File System Viewer" in the User Guide for more information.
- Avoid scanning the /xfs directory on Solaris. File System Viewer does not detect the /xfs directory in the directory listing for the root file systems on Solaris hosts.

- Depending on your license, File System Viewer may not be available. See the “List of Features” to determine if you have access to File System Viewer. The “List of Features” is accessible from the Documentation Center (**Help > Documentation Center** in Storage Essentials).
- File System Viewer has a file name limit of 254 characters.
- If you plan to have File System Viewer scan a host, make sure you have 220 to 230 MB for each set of 1 million files.
- If you want to use File System Viewer bulk import capability for non-ASCII characters (such as Chinese, Japanese, or Korean), the file should be created with UTF-8 encoding. Notepad, among other tools, lets you specify the encoding in its “Save As” dialog.
- Reparse points (Junctions) for file servers on Microsoft Windows are scanned. For example, assume you create a “junction” named C:\DDrive, which points to the root of the D drive. The content of the D drive is available under C:\DDrive. After a scan, information on capacity and amount used are displayed for the C drive; however, the sum of the file sizes on the C drive also includes the junction (C:\DDrive), which points to the root of the D drive. If you do not want to include the scanning of reparse points, see “[Disabling the Scanning of Reparse Points](#)” on page 5.


## About Reports for File System Viewer

Reporter provides a variety of detailed reports for file servers. You can view reports for File System Viewer in Reporting by clicking **System > File Server** in Reporting. To access Reporting, click **Reports > Storage Essentials > Manage Reports**.

Data collectors gather information for reports. If you stop a data collector, its reports are not updated. You might want to verify a collector is running if you are having difficulty viewing a report or you believe the report is not displaying the latest information. See the User Guide for more information.

The management server provides reports that display performance information in a variety of formats:

- **HTML (Default)** - The software displays the report in a Web page by default.
- **PDF** - The software displays the report in Adobe Acrobat, a good option if you need to print the report. The software assumes you already have Adobe Acrobat Reader installed on your computer. To obtain a copy of Adobe Acrobat Reader, go to <http://www.adobe.com>.
- **Excel** - The software displays the report in Microsoft Excel, providing you have a copy of Microsoft Excel already installed.
- **XML** - The software displays the report in the XML format.

It also provides some reports with pie charts. The  icon next to the report name indicates the report displays a graphic.

## Policies for File System Viewer

This chapter describes the following:

- “[Accessing Policy Manager for File System Viewer](#)” on page 3
- “[Creating Policies for File System Viewer](#)” on page 3

# Accessing Policy Manager for File System Viewer

This topic provides the various techniques for accessing Policy Manager. You have multiple options for accessing utilization policies for file servers. The flexibility for accessing utilization policies lets you easily create and manage utilization policies without interrupting your work flow.

Policy Manager provides the following options for accessing utilization policies:

- **To easily access other functionality, such as the Events, Topology and Volumes tabs** - Double-click a file server in System Manager and then click the **Policies** tab. This method displays the utilization policies for just the file server that was double-clicked.
- **To easily access all utilization policies** - Click **Tools > Storage Essentials > Policy Manager**. In the Policy Manager tree in the middle pane, expand the node, **Utilization Policies**. Then, expand the **Applications** and **File Servers** nodes for the file server. Click the name of the file server for which you want to create a policy. To view all utilization policies, click the **Utilization Policies** node.
- **To easily access other functionality for file servers, Users and Groups tabs** - Access the Policy tab in Application Viewer. Expand the **Applications** and **File Servers** nodes in the tree in Application Viewer. Click the file server name in the Application Viewer tree. Click the **Policies** tab in the right pane.

## Creating Policies for File System Viewer

You can create a utilization policy that generates an event, sends an e-mail, or runs a custom command when an element is being overused. For example, you can configure Policy Manager so you receive an e-mail message when the amount of free space on a server decreases to a specified level.

---

**IMPORTANT:** If you plan to use e-mail notification with your policy, first assign an SMTP server from which the management server can send its e-mail notifications. See the topic, "Setting Up E-mail Notification."

---

To create a utilization policy for a file server:

1. Access Policy Manager as described in the topic, "[Accessing Policy Manager for File System Viewer](#)" on page 3.
2. In the right pane, click the **Add** button.
3. Select a policy. Then, click **Next**.  
The following types may be displayed.

**Table 2** Policy Templates

Policy Type	Description
Free Space	Amount of free space on the file server.
Percent Used	Percentage of disk space used.

4. In the **Name** field on the Policy Properties tab, modify the name of the policy or keep the default.
5. In the **Description** field, modify the description for the policy or keep the default.
6. In the **Re-arm Period** field, specify a re-arm period in minutes.

The rearm period is the amount of time after the policy executes before it can execute again. It is useful for limiting the number of times the same actions will execute.

**Important:** Specify shorter periods for important applications.

7. To the right of the comparison operator drop-down menu, type a percentage or an amount in gigabytes (GB) depending on the field name displayed.
8. Select an action to occur when the policy condition is fulfilled by clicking one of the following buttons (more than one action can be assigned to a policy):

- **Send E-mail** - Policy Manager sends an e-mail when the condition is fulfilled. Enter a comma-separated list of e-mail addresses, and then click **OK**.
- **Generate Event** - Policy Manager generates an event of the specified event type. The event appears in Event Manager. Select one of the following event types.

**Important:** Since the severity level for an element is set by the manufacturer, the meanings of the severity levels vary. It is best to view the description of the event.

- **Unknown** - The severity level is not known.
- **Informational** - An example of an informational event is a progress report event for firmware download operation currently in progress.
- **Warning** - An example of a warning is one or more new physical fabric objects (device port, switch, or fabric) have appeared.
- **Minor** - An example of a minor event is a physical fabric object (switch port or fabric) has changed state.
- **Major** - An example of a major event is one or more physical fabric objects (device port, switch, or fabric) have disappeared.
- **Critical** - An example of a critical event is Brocade switches that have a failed firmware download and the failure reason code for each respective switch.

After you select an event level, click **OK**.

- **Execute a Custom Command** - Policy Manager executes a custom command on the management server when the condition is fulfilled. Type a command that will execute the script in the field. Then, click **OK**. The software assumes you are in the `[Install_Dir]\JBossandJetty\server\appiq\remotescripts` directory on the management server when the script is executed. You can use environment variables in your script, such as `POLICY_NAME` and `POLICY_DESCRIPTION`. `POLICY_NAME` provides the policy name and `POLICY_DESCRIPTION` provides the policy description. See the topic, "Software Environment Variables for Scripting" in the *User Guide* for more information.

Prefix the command with "start" if the custom command triggers a UI component, such as a program that uses the UI (Example: Microsoft Internet Explorer) or a command prompt window.

For example, assume you want the custom command to open a command prompt window and list the contents in the directory. You would prefix the command with start as shown below:

```
start dir
```

9. Click **Finish**.
10. To test a policy, click the **Test** button in the Utilization Policy table.
11. For more information about editing, deleting and e-mailing policies, see the chapter on Policy Manager in the User Guide.

## Disabling the Scanning of Reparse Points

Reparse points (Junctions) for file servers on Microsoft Windows are scanned. For example, assume you create a "junction" named C:\DDrive, which points to the root of the D drive. The content of the D drive is available under C:\DDrive. After a scan, information on capacity and amount used are displayed for the C drive; however, the sum of the file sizes on the C drive also includes the junction (C:\DDrive), which points to the root of the D drive.

To disable the scanning of reparse points on Windows file servers:

1. Click **Options > Storage Essentials > Manage Product Health** then click **Advanced** in the Disk Space tree.
2. Click **Show Default Properties** at the bottom of the page.
3. Copy the `DisableReparsePointsScan` property. How you copy the text depends on your Web browser. If you are using Microsoft Explorer or Netscape Navigator, select the text and then right-click the selected text. Then, select **Copy**.
4. Return to the Advanced page (**Options > Storage Essentials > Manage Product Health** then click **Advanced** in the Disk Space tree).
5. Paste the copied text into the **Custom Properties** field. How you paste the text depends on your Web browser. If you are using Microsoft Explorer or Netscape Navigator, right-click the field and select **Paste**.
6. Change the value assigned to the `DisableReparsePointsScan` property to true in the **Custom Properties** field.  
`DisableReparsePointsScan=true`
7. When you are done, click **Save**.
8. Restart the service for the management server for your changes to take effect.



---

## 2 File Server Details

This chapter describes the following:

- ["Viewing Summary Information About File Servers"](#) on page 7
- ["Types of Files on the File Servers"](#) on page 8
- ["Age Properties of Files on File Servers"](#) on page 9
- ["Viewing Security and User Identifiers for All File Servers"](#) on page 10
- ["Managing Users"](#) on page 12
- ["Managing Groups"](#) on page 18

### Viewing Summary Information About File Servers

The management server provides a page that displays the summary information about all the file servers. To access the Summary page expand the **Applications** node in the tree in Application Viewer. Then, click **File Servers** node. The Summary page is displayed by default. It provides a snapshot of the applications the management server detects by displaying the following:

- A graph displaying the top five file servers by usage and the amount of space they occupy.
- A table to the right of the graph displaying the number of:
  - Total Servers
  - Total Volumes
  - Total Storage
  - Used Space
  - Free Space
  - Percent Used Space
  - Percent Free Space
  - Total Users
  - Total Users Space
  - Total Groups
  - Total Groups Space
- A table under the graph displaying the following for each file system:
  - File Server name
  - Total Volumes
  - Capacity
  - Used
  - Percentage Used
  - Number of Users
  - User Space
  - Number of Groups

- Group Space

## Types of Files on the File Servers

The Extensions page provides information about the types of files on the file servers. For example, it can let you know how many mpg files are stored on the file servers and their file size.

To access the Extension page:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Expand the **Applications** node in the tree in Application Viewer.
3. Click **File Servers** node.
4. Click the **Extensions** tab in the right pane.

You see the following:

- A graph displaying the top 10 extensions and their size.
- A table below the graph displaying the extensions and the following properties:
  - **Size** - The size of all the files with that extension. This property lets you see which types of files are using the most space on the file servers.
  - **Count** - The number of files with this extension.
- 5. In the right pane, click an extension under the Extension column.

The following is displayed:

- A pie chart showing the sizes of the files with the extension per server.
- A pie chart showing the number of files with the extension per server.
- A table showing the number of files with the extension per server and the amount of space they occupy.

Data less than 1 MB is not displayed in the graphs. This could result in an empty graph if all data points are less than 1 MB.

6. To view more information about the extensions on a volume, click a file server in the File Server column in the table.

The following is displayed:

- A pie chart showing the sizes of the files with the extension per volume
- A pie chart showing the number of files with the extension per volume
- A table showing the number of files with the extension per volume and the amount of space they occupy.

Data less than 1 MB is not displayed in the graphs. This could result in an empty graph if all data points are less than 1 MB.

7. To view a listing of the files with the extension on the volume, click a volume in the Drive column in the table.

The files with the extension are listed along with their path, size and the date they were last accessed, modified, or created.



---

**NOTE:** You can save the extensions for a volume in a comma-separated list (CSV file) by clicking the **Save Extension Detail** button in the right pane.

---

8. To filter the list of files, type an attribute that the files must have to be displayed, such as a directory name. Then, click the **Submit** button.

### Filtering Files

Filters use the following expressions:

- d\* will return all extensions starting with d
- \*d will return all extensions ending with d
- \*d\* will return all extensions having d in the extension

You can enter a list of extensions separated by a comma.

## Age Properties of Files on File Servers

The Aging page provides information about the age of the files on the file servers. It is accessible by doing the following:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Expand the **Applications** node in the tree in Application Viewer.
3. Click **File Servers** node.
4. Click the **Aging** tab in the right pane.
5. To save the aging details to a comma-separated list (CSV file):
  - a. In the right pane under the File Server column on the Aging tab, click a link for a file server.
  - b. Click a link for a volume in the right pane.
  - c. Click one of the following headings in the right pane:
    - 0-30 days
    - 30-60 days
    - 60-90 days
    - 90-180 days
    - 180+ days
  - d. Click the **Save Aging Details** button.

By default the page displays the following information about the last time a file was accessed.

- A graph displaying the size of each set of files belonging to an age group:
  - **30** - Files accessed in the last 30 days
  - **60** - Files accessed within 30 and 60 days
  - **90** - Files accessed within 60 and 90 days
  - **180** - Files accessed within 90 and 180 days
  - **Max** - Files accessed more than 180 days ago.

- A table to the right of the graph displaying the number of:
  - **Files (> 180 days)** - The number of files accessed more than 180 days
  - **Files Size (> 180 days)** - The size of the files accessed more than 180 days ago.
  - **Files (< 30 days)** - The number of files less than 30 days old.
  - **Files Size (< 30 days)** - The size of the files less than 30 days old.
- **Age Distribution** combo box. You can change this page to display information according to when the files were last modified or created. Select one of the options and click **Submit**.
- A table under the graph displaying the number of files accessed within the specified time period and the size of those files.

## Viewing Individual Files

To view a listing of files with a particular age attribute, do the following:

1. Click the one of the following headings in the table on the Age tab for the file servers.
  - 0-30 days
  - 30-60 days
  - 60-90 days
  - 90-180 days

The following is displayed:

- A graph showing the size of the files that fit the criteria. They are color coded by server.
- A graph showing the number of files that fit the criteria. They are color coded by server.
- A table listing the file servers and the size of files and number of files fitting the criteria.

2. Click a file server in the **File Server** column.

The volumes on the file server are listed.

3. Click a volume.

4. Click one of the following for the criteria you want.

- 0-30 days
- 30-60 days
- 60-90 days
- 90-180 days

The files that meet the criteria are listed.

5. To filter the list of files, type an attribute that the files must have to be displayed, such as a directory name. Then, click the **Submit** button.
6. To save the aging details to a comma-separated list (CSV file), click the **Save Aging Details** button.

## Viewing Security and User Identifiers for All File Servers

You can determine the owner of a file by accessing the Ownership tab. This tab also lets you determine how many files this owner is using on file server.

---

**IMPORTANT:** The Ownership tab is disabled by default for file servers running on Microsoft Windows. To view the Ownership tab, you must set the `CollectWindowsSID` property to true as described in ["Enabling the Ownership Tab on Windows"](#) on page 11.

---

The Ownership tab is accessible by doing the following:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Expand the **Applications** node in the tree in Application Viewer.
3. Click the **File Servers** node.
4. Click the **Ownership** tab in the right pane.
  - A graph displaying the top 10 owners, who use the most in megabytes.
  - A table displaying the following:
    - **File Server** - The file server name
    - **Ownership** - The security identifier (Windows) or user identifier (UNIX).
    - **Files** - The files that the security identifier or user identifier uses.
    - **Size** - The total size of the files the security identifier or user identifier uses.

## Enabling the Ownership Tab on Windows

---

**IMPORTANT:** The Ownership tab is disabled by default for file servers running on Microsoft Windows. To view the Ownership tab, you must set the `CollectWindowsSID` property to true as described in ["Enabling the Ownership Tab on Windows"](#) on page 11.

---

To set the `CollectWindowsSID` property to true:

1. Click **Options > Storage Essentials > Manage Product Health** then click **Advanced** in the Disk Space tree.
2. Click **Show Default Properties** at the bottom of the page.
3. Copy the `CollectWindowsSID` property. How you copy the text depends on your Web browser. If you are using Microsoft Explorer or Netscape Navigator, select the text and then right-click the selected text. Then, select **Copy**.
4. Return to the Advanced page (**Options > Storage Essentials > Manage Product Health** then click **Advanced** in the Disk Space tree).
5. Paste the copied text into the **Custom Properties** field. How you paste the text depends on your Web browser. If you are using Microsoft Explorer or Netscape Navigator, right-click the field and select **Paste**.
6. Make your changes in the **Custom Properties** field. .  
Change the value assigned to the `CollectWindowsSID` property to true.  
`CollectWindowsSID=true`
7. When you are done, click **Save**.
8. Restart the service for the management server for your changes to take effect.

# Managing Users

This section describes the following:

- ["Properties of Users"](#) on page 12
- ["Viewing Details for a File System Viewer User"](#) on page 13
- ["Adding File System Viewer Users"](#) on page 13
- ["Modifying File System Viewer Users"](#) on page 14
- ["Deleting File System Viewer Users"](#) on page 14
- ["Exporting the List of Users"](#) on page 15
- ["Modifying a List of Users"](#) on page 15
- ["Importing a List of Users"](#) on page 17

## Properties of Users

The Users tab displays the properties of the user accounts assigned to file servers.

It is accessible by doing the following:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Expand the **Applications** node in the tree in Application Viewer.
3. Click the **File Servers** node.
4. Click the **Users** tab in the right pane.

---

**IMPORTANT:** The users described on this page are different from the users for the management server. If you are not seeing data on this page, you must first create your File System Viewer users, as described in the topic, ["Adding File System Viewer Users"](#) on page 13.

---

The page displays the following:

- A graph displaying the top 10 users by usage and the amount of space they use.
- A summary table to the right of the graph displaying the following:
  - **Users** - The number of users assigned to all of the file servers monitored.
  - **Users Size** - The amount of space the users use.
  - **Largest User** - The user who uses the most space.
  - **Largest User Size** - The amount of space the largest user uses.
- A table below the graph displaying the users and the following properties:
  - **\*User ID** - The ID of the user
  - **\*User Name** - The name of the user
  - **\*Home Directory** - The home directory of the user. The home directory is assigned to a user by the user's organization. By default, the user has full access rights (read, write, execute) to the home directory.
  - **Department Number** - The number of the department to which the user is assigned. The department number was entered when the department was created in Chargeback.

- **\*Quota** - The amount of space the user is allocated
- **Used** - The amount of space the user is using
- **Instances** - The number of file servers on which the user's home directory is present.
- \*These properties and the full name are entered manually.

To display the properties of just one user account, type the full name in the **Filter** field and then click the **Submit** button.

## Viewing Details for a File System Viewer User

You can view detailed information about a File System Viewer user, such as the following:

- User's file server
- User's volume
- The amount of space the user is used
- The user's path

To view details of a File System Viewer user:

1. Access Application Viewer.
2. Expand the **File Servers** node in the tree in Application Viewer.
3. In the right pane, click the **Users** tab.
4. Under the User ID column, click the link for the user you want to know more about.

You are shown detailed information about the user.

## Adding File System Viewer Users

File System Viewer provides data about users on the file servers. For example the software provides information such as:

- The amount of space the users are using
- The user who is using the most amount of space and the amount of space being used

To obtain information about users, you **must** first add them in File System Viewer. These users differ from the users for the management server. When you add a File System Viewer user, you are making File System Viewer aware of that user for monitoring. That user is not granted access to the management server.

To add a File System Viewer user:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Click the **File Servers** node.

---

**NOTE:** Do not click the node name for an actual file server. Click the node with the name **File Servers**.

---

3. In the right pane, click the **Users** tab.
4. Click the **New User** button located under the graph.

5. In the **ID** field, type the user ID.
6. In the **Name** field, type the name for the user.
7. In **Directory** field, enter the home directory for the user. The home directory is assigned to a user by the user's organization. By default, the user has full access rights (read, write, execute) to the home directory.
8. In the **Department No** drop-down menu, select a department number corresponding to the department to which the user belongs. The department number was assigned to the department when the department was added by using Chargeback Manager.
9. In the **E-mail** field, type the user's e-mail address.
10. In the **Quota** field, type the maximum amount in megabytes the user can use.
11. Click **OK**.

## Modifying File System Viewer Users

You can modify the following properties for a File System Viewer user:

- **Name**
- **Department Number**
- **E-mail**
- **Quota**

---

**IMPORTANT:** These steps modify a File System Viewer user, not a user account for the management server.

---


To modify one or more of these properties for a user:

1. Click **Tool > Storage Essentials > Application Viewer**.
2. Click the **File Servers** node.

---

**NOTE:** Do not click the node name for an actual file server. Click the node with the name **File Servers**.

---

3. In the right pane, click the **Users** tab.
4. In the table below the graphic, click the Edit () button corresponding to the user you want to modify.
5. Modify one or more of the properties listed at the beginning of this section.
6. Click **OK**.

The File System Viewer user is updated.

## Deleting File System Viewer Users

To delete a File System Viewer user for a file server:

---

**IMPORTANT:** These steps modify a File System Viewer user, not a user account for the management server. They do not impact access to the management server nor to the file server.

---

To delete a File System Viewer user:

1. Click **Tool > Storage Essentials > Application Viewer**.
2. Click **File Servers** node.

---

**NOTE:** Do not click the node name for an actual file server. Click the node with the name **File Servers**.

---

3. In the right pane, click the **Users** tab.
4. In the table below the graphic, click the Delete () button corresponding to the user you want to remove.

## Exporting the List of Users

After you add your users, export the list of users in case you need to reinstall the management server. The user list is saved as a comma separated list (.csv file), which can be opened in a text editor, such as Notepad. You can add to the comma separated list as described in "[Modifying a List of Users](#)" on page 15.

To export the list of users:

1. Click **Tool > Storage Essentials > Application Viewer**.
2. Click **File Servers** node.

---

**NOTE:** Do not click the node name for an actual file server. Click the node with the name **File Servers**.

---

3. In the right pane, click the **Users** tab.
4. Click the **Export Users** button.
5. When you are asked if you want to save the csv file, click **Save**. Then, designate a location to save the file.

## Modifying a List of Users

After you export a list of users, you can easily add to it. The attributes for each user appears on its own row. The format of a user's record is as follows:

```
<User ID>,<User Name>,<Home Directory>,<Department>,<E-Mail>,<Quota>
```

Assume you have a user with the following attributes:

- **User ID** - JS
- **User Name** - John Smith
- **Home Directory** - Program Files

- **Department** - Engineering
- **E-Mail** - jsmith@companyname.com
- **Quota** - 500

The information for the user would appear as follows in the list:

JS,John Smith,Program Files,Engineering,jsmith@companyname.com,500

A list with multiple users would appear as follows:

JS,John Smith,Program Files,Engineering,jsmith@companyname.com,500  
 JD,John Doe,Program Files,Engineering,jdoe@companyname.com,500  
 DD,David Double,Program Files,Engineering,jdouble@companyname.com,500

The following fields must be valid. Failure of any of these conditions causes the management server to log that record as an error and continue to the next record:

- <User ID>
- <Home Directory>
- <Department> - (Optional) If you provide a department, the department must exist on the management server. The department can be empty.
- <Quota>

**Table 3** Restrictions for User Fields

Fields	Not Allowed
User ID	<ul style="list-style-type: none"> <li>• No characters (required field)</li> <li>• More than 64 characters</li> <li>• Single quote (')</li> <li>• Double quote (")</li> <li>• Foward slash (/)</li> <li>• Backslash (\)</li> </ul>
User Name	<ul style="list-style-type: none"> <li>• No characters (Required field)</li> <li>• More than 64 characters</li> </ul>
Home Directory	<ul style="list-style-type: none"> <li>• No characters (Required field)</li> <li>• More than 1023 characters.</li> <li>• Foward slash (/)</li> <li>• Backslash (\)</li> </ul> <p>You are warned of an invalid directory if the management server cannot find the home directory in the top two levels of the file server.</p>



**Table 3** Restrictions for User Fields (continued)

Fields	Not Allowed
Department	Non-existing department. You must provide a department that exists or provide a null character.  You can leave this field blank, as this information is options.
E-Mail	More than 253 characters.  You can leave this field blank, as this information is options.
Quota (Megabytes)	A number more than 999999999999 (More than 13 characters in length). A rational number is required.  If you leave the quota field blank, it is assumed the quota is unlimited.

## Importing a List of Users

The management server provides two ways to import a list of users:

- **Full Import** - Replaces all current users in the list with the users in the import file.
- **Partial Import** - Updates existing users and adds new users.

To import a list of users:

1. Click **File Servers** node.

---

**NOTE:** Do not click the node name for an actual file server. Click the node with the name **File Servers**.

---

2. In the right pane, click the **Users** tab.
3. Click the **Import Users** button.
4. Click the **Browse** button to select the list of users you want import.
5. Select **Full Import** or **Partial Import**.
6. Click **OK**.

When you perform a partial or full import, you are provided with a report with the following information:

- Number of records read
- Number of users created
- Number of users updated
- Number of users failed to create
- Format errors

- Directory not specified
- Invalid departments
- Multiple entries for users
- Invalid directories

## Managing Groups

This section describes the following:

- ["Properties of Groups Assigned to a File Server"](#) on page 18
- ["Adding File System Viewer Groups"](#) on page 19
- ["Modifying File System Viewer Groups"](#) on page 19
- ["Deleting File System Viewer Groups"](#) on page 20
- ["Exporting Groups"](#) on page 20
- ["Modifying a List of Groups"](#) on page 21
- ["Importing Groups"](#) on page 22

## Properties of Groups Assigned to a File Server

To find the properties of the groups assigned to a file server.

1. Expand the **Applications** node in the tree in Application Viewer.
2. Click the **File Servers** node.
3. Click the **Groups** tab in the right pane.

---

**IMPORTANT:** The groups described on this page are different from the groups in System Manager. If you are not seeing data on this page, you must first create your File System Viewer groups, as described in the topic, ["Adding File System Viewer Groups"](#) on page 19.

---

The page displays the following:

- A graph displaying the top 10 groups by usage and the amount of space they use.
- A summary table to the right of the graph displaying the following:
  - **Groups** - The number of groups assigned to all of the file servers monitored.
  - **Groups Size** - The amount of space the groups use.
  - **Largest Group** - The group that uses the most space.
  - **Largest Group Size** - The amount of space the largest group uses.
- A table below the graph displaying the group and its following properties:
  - **\*Name** - The name of the group
  - **\*Home Directory** - The home directory for a group is a directory where a set of users, who belong to the group, have full access rights. When users want to create a file accessible to all users of that group, they create the file in the home directory.
  - **\*Department No** - The department number corresponding to the department to which the group belongs.

- **\*Quota** - The amount of space the group is allocated
- **\*Used** - The amount of space the group is using
- **Instances** - The number of file servers on which the group's home directory is present.

\*These properties and the name are entered manually.

To display the properties of just one group, type the name in the **Filter** field and then click the **Submit** button.

## Adding File System Viewer Groups

File System Viewer provides data about groups on the file servers. For example, the software provides information such as:

- The number of groups on a file server
- The amount of space the groups are using
- The group that is using the most amount of space and the amount of space it is using

To obtain information about groups, you **must** first add them in File System Viewer. The groups described on this page are different from the groups in System Manager. If you are not seeing data on this page, you must first create your File System Viewer groups, as described in the topic, "[Adding File System Viewer Groups](#)" on page 19.

To add a File System Viewer group:

1. Click **Tool > Storage Essentials > Application Viewer**.
2. Click the **File Servers** node in the tree in Application Viewer.

---

**NOTE:** Do not click the node name for an actual file server. Click the node with the name **File Servers**.

---

3. In the right pane, click the **Groups** tab.
4. Click the **New Group** button located under the graph.
5. In the **Name** field, type the name of the group.
6. In the **Contact** field, type a contact name for the group.
7. In the **Directory** field, type the directory for the group. The home directory for a group is a directory where a set of users, who belong to the group, have full access rights. When users wants to create a file accessible to all users of that group, they create the file in the home directory.
8. From the **Department No** drop-down menu, select the directory number corresponding to the directory to which the group belongs.
9. In the **E-Mail** field, type the e-mail address for the contact of the group.
10. In the **Quota** field, type the maximum amount in megabytes the group can use.
11. Click **OK**.

## Modifying File System Viewer Groups


To modify File System Viewer groups:

1. Click **Tool > Storage Essentials > Application Viewer**.
2. Click the **File Servers** node in the tree in Application Viewer.

---

**NOTE:** Do not click the node name for an actual file server. Click the node with the name **File Servers**.

---

3. In the right pane, click the **Groups** tab.
4. In the table below the graphic, click the Edit () button corresponding to the group you want to modify.
5. Modify one or more of the following properties:
  - Contact
  - Department No
  - E-mail
  - Quota (MB)
6. Click **OK**.  
The group is modified.

## Deleting File System Viewer Groups

To delete File System Viewer groups:

1. Click **Tool > Storage Essentials > Application Viewer**.
2. Click the **File Servers** node in the tree in Application Viewer.

---

**NOTE:** Do not click the node name for an actual file server. Click the node with the name **File Servers**.

---

3. In the right pane, click the **Groups** tab.
4. In the table below the graphic, click the Delete () button corresponding to the group you want to remove.  
The group is removed.

## Exporting Groups

After you add your groups, export the list of groups in case you need to reinstall the management server. The group list is saved as a comma separated list (.csv file), which can be opened in a text editor, such as Notepad. You can add to the comma separated list as described in "[Modifying a List of Groups](#)" on page 21.

To export the list of groups:

1. Click **Tool > Storage Essentials > Application Viewer**.
2. Click **File Servers** node.

---

**NOTE:** Do not click the node name for an actual file server. Click the node with the name **File Servers**.

---

3. In the right pane, click the **Groups** tab.
4. Click the **Export Groups** button.
5. When you are asked if you want to save the csv file, click **Save**. Then, designate a location to save the file.

## Modifying a List of Groups

After you export a list of groups, you can easily add to it. The attributes for each group appears on its own row. The format of a group's record is as follows:

```
<GroupName>,<Group Contact>,<Home Directory>,<Department>,<E-Mail>,<Quota>
```

Assume you have a group with the following attributes:

- **Group Name** - Boston
- **Group Contact** - John Smith
- **Home Directory** - Program Files
- **Department** - Marketing
- **E-Mail** - jsmith@companyname.com
- **Quota** - 500

Information for the group would appear as the following record in the list:

```
Boston,John Smith,Program Files,Marketing,jsmith@companyname.com,500
```

A list with multiple groups would appear as follows:

```
Boston,John Smith,Program Files,Marketing,jsmith@companyname.com,500  
Chicago,John Doe,Program Files,Marketing,jdoe@companyname.com,500  
Dallas,David Double,Program Files,Marketing,jdouble@companyname.com,500
```

The following fields must be valid. Failure of any of these conditions causes the management server to log that record as an error and continue to the next record:

- <Group Name>
- <Home Directory>
- <Department> - (Optional) If you provide a department, the department must exist on the management server. The department can be empty.
- <Quota>

**Table 4** Restrictions for Group Fields

Fields	Not Allowed
Group ID	<ul style="list-style-type: none"><li>• No characters (required field)</li><li>• More than 64 characters</li><li>• Single quote (')</li><li>• Double quote (")</li><li>• Foward slash (/)</li><li>• Backslash (\)</li></ul>
Group Name	<ul style="list-style-type: none"><li>• No characters (Required field)</li><li>• More than 64 characters</li></ul>
Home Directory	<ul style="list-style-type: none"><li>• No characters (Required field)</li><li>• More than 1023 characters.</li><li>• Foward slash (/)</li><li>• Backslash (\)</li></ul> <p>You are warned of an invalid directory if the management server cannot find the home directory in the top two levels of the file server.</p>
Department	<p>Non-existing department. You must provide a department that exists or provide a null character.</p> <p>You can leave this field blank.</p>
E-Mail	<p>More than 253 characters.</p> <p>You can leave this field blank.</p>
Quota (Megabytes)	<p>A number more than 999999999999 (More than 13 characters in length). A rational number is requiried.</p> <p>If you leave the quota field blank, it is assumed the quota is unlimited.</p>

## Importing Groups

The management server provides two ways to import a list of groups:

- **Full Import** - Replaces all current groups in the list with the groups in the import file.
- **Partial Import** - Updates existing groups and adds new groups.

To import a list of groups:

1. Click **File Servers** node.

2. In the right pane, click the **Groups** tab.
3. Click the **Import Groups** button.
4. Click the **Browse** button to select the list of groups you want import.
5. Select **Full Import** or **Partial Import**.
6. Click **OK**.

When you perform a partial or full import, you are provided with a report with the following information:

- Number of records read
- Number of groups created
- Number of groups updated
- Number of groups failed to create
- Format errors
- Directory not specified
- Invalid departments
- Multiple entries for groups
- Invalid directories





---

## 3 Individual File Server Details

This chapter describes the following:

- ["Viewing Properties for a File Server"](#) on page 25
- ["Finding Volume Details"](#) on page 26
- ["Types of Files on a File Server"](#) on page 27
- ["Aging Properties of Files on a File Server"](#) on page 29
- ["Viewing Events for a File Server"](#) on page 30
- ["Viewing Report Collectors for a File Server"](#) on page 31
- ["Viewing Policies for a File Server"](#) on page 32
- ["Finding Individual Volume Details"](#) on page 33

### Viewing Properties for a File Server

To view the properties for a file server:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Expand the **Applications** node in the tree in Application Viewer.
3. Expand the **File Servers** node.
4. Click a file server name in the tree.
5. Click the **Properties** tab in the right pane.

The Properties page displays the following information.

- **Custom Name** - A unique name for the file server. The custom name is displayed for the File System Viewer application instead of the file server's default name. The unique name helps in distinguishing this File System Viewer instance from the actual server. To create a unique name, type the name in the Custom Name field, and then click the **Save** button.
- **\*Vendor** - The vendor that created the file server.
- **Business Cost** - Used to determine the cost impact of the application on the network. The currency displayed is dependent upon the standards and formats setting on the management server. In the Business Cost field, type an amount, for example 35.25. Then click **OK**.

Keep in mind the following:

- You cannot enter a symbol in front of the number, except for the dollar sign (\$).
- You can enter a number with decimal points, 30.50.
- **\*Contacted** - The last time the software contacted the file server.
- **\*Record Created** - When a record was created for the file server.
- **\*Discovery Status** - The status of the last discovery. If the element was just discovered, the status is at "created."
- **Install Date** - When the file server was installed.
- **\*Name Detected** - The name of the file server detected.

- **OID** - The Object Identifier
- **\*Description** - Provides information about the type of element. In this instance, it would display FileServer.
- **CodeSet** - The code set name.
- **SoftwareElementID** - The ID of the software element.
- **SoftwareElementState** - The state of the software element.
- **Target Operating System** - The operating system of the file server.
- **IdentificationCode** - The identification code of the file server.
- **Product Name** - The product name of the file server.
- **Serial Number** - The serial number of the file server.
- **Build Number** - The build number of the file sever.
- **Version** - The version number of the file server.
- **ApplicationData** - Data about the application (File System Viewer).
- **\*Host** - The name of the host
- **Business Cost (per hour)** - The business cost that was set at the top of this page.

\*These fields are populated. The rest of the fields are blank by default.

## Finding Volume Details

To view the properties of the volumes on a file server:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Expand the **Applications** node in the tree in Application Viewer.
3. Expand the **File Servers** node.
4. Click a file server name in the tree.
5. Click the **Volumes** tab in the right pane.

---

**NOTE:** You can view additional information on volumes that have had file server collection. See ["Viewing Detailed Information for Scanned Volumes"](#) on page 27 for more information.

---

This page displays the following:

- A graph displaying the top five volumes by usage on the file server. The amounts for free space and used space are displayed. Data less than 1 MB is not displayed in the graph. This could result in an empty graph if all data points are less than 1 MB.
- A summary table to the right of the graph displaying the following:
  - **Volumes** - The number of volumes on the file server.
  - **Capacity** - The size of all volumes on the file server.
  - **Used** - The amount of used space on all volumes on the file server.
  - **Free** - The amount of free space on all volumes on the file server.
  - **Used Percent** - The amount of used space on all volumes on the file server.

- **Free Percent** - The amount of free space on all volumes on the file server.
- **Users** - The number of users assigned to one or more of the volumes on the file server.
- **Users' Space** - The amount of space the users use on the file server.
- **Groups** - The number of groups assigned to one or more volumes on the file server.
- **Groups' Space** - The amount of space the groups use on the file server.
- A table below the graph displaying the volumes and the following properties:
  - **Capacity** - The size of the volume.
  - **Used** - The amount of space that is used on that volume.
  - **Used %** - The percentage used on the volume.
  - **Users** - The number of users assigned to that volume.
  - **Users Space** - The amount of space the users use.
  - **Groups** - The number of groups assigned to that volume.
  - **Groups Space** - The amount of space the groups use.

## Viewing Detailed Information for Scanned Volumes

You can find even more information about a volume by clicking a volume that has had file server collection.

This page displays the following:

- A graph displaying the amount of used and free space on a volume. Data less than 1 MB is not displayed in the graph. This could result in an empty graph if all data points are less than 1 MB.
- A summary table to the right of the graph displaying the following:
  - **Total Storage** - The amount of total storage space on the volume.
  - **Used** - The amount of used space on the volume.
  - **Free** - The amount of free space on the volume.
  - **Used Percent** - The amount of used space on the volume.
  - **Free Percent** - The amount of free space on the volume.
  - **File System** - The type of file system on the volume.
  - **No. of Files** - The number of files on the volume.
  - **No. of Directories** - The number of directories on the volume.
- The Snap Shot table displays the following information, which is also displayed as a graph in the lower-right corner of the page:
  - **Users** - The number of users assigned to the volume.
  - **Users Size** - The amount of space the users use on the volume.
  - **Groups** - The number of groups assigned to the volume
  - **Groups Size** - The amount of space the groups use on volume

## Types of Files on a File Server

The Extensions page provides information about the types of files on a file server. For example, it can let you know how many mp3s are stored on a file server and their file size.

To access the Extension page:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Expand the **Applications** node in the tree in Application Viewer.
3. Expand the **File Servers** node.
4. Click a file server name in the tree.
5. Click the **Extensions** tab in the right pane.

You see the following:

- A graph displaying the top 10 extensions and their size.
  - A table below the graph displaying the extension and its following properties:
    - **Size** - The size of all the files with that extension. This property lets you see which types of files are using the most space on a file server.
    - **Count** - The number of files with this extension.
6. Click an extension in the Extension column in the table.

The following is displayed:

- A pie chart showing the sizes of the files with the extension per volume
- A pie chart showing the number of files with the extension per volume
- A table showing the number of files with the extension per volume and the amount of space they occupy.

Data less than 1 MB is not displayed in the graph. This could result in an empty graph if all data points are less than 1 MB.

7. To view a listing of the files with the extension on the volume, click a volume in the Drive column in the table.

The files with the extension are listed along with their path, size and the date they were last accessed, modified, or created.

---

**NOTE:** You can save the extensions for a volume in a comma-separated list (CSV file) by clicking the **Save Extension Detail** button in the right pane.

---

8. To filter the list of files, type an attribute that the files must have to be displayed, such as a directory name. Then, click the **Submit** button.
9. You can save the extensions for a volume in a comma-separated list by doing the following:

### Filtering Files

Filters use the following expressions:

- d\* will return all extensions starting with d
- \*d will return all extensions ending with d
- \*d\* will return all extensions having d in the extension
- You can enter a list of extensions separated by a comma.

# Aging Properties of Files on a File Server

To find information about the aging properties of the files on a file server:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Expand the **Applications** node in the tree in Application Viewer.
3. Expand the **File Servers** node.
4. Click a file server name in the tree.
5. Click the **Aging** tab in the right pane.
6. To save the aging details to a comma-separated list (CSV file):
  - a. In the right pane under the File Server column on the Aging tab, click a link for a file server.
  - b. Click a link for a volume in the right pane.
  - c. Click one of the following headings in the right pane:
    - 0-30 days
    - 30-60 days
    - 60-90 days
    - 90-180 days
    - 180+ days
  - d. Click the **Save Aging Details** button.

By default the page displays the following information about the last time a file was accessed.

- A graph displaying the size of each set of files belonging to an age group:
  - **30** - Files accessed in the last 30 days
  - **60** - Files accessed within 30 and 60 days
  - **90** - Files accessed within 60 and 90 days
  - **180** - Files accessed within 90 and 180 days
  - **Max** - Files accessed more than 180 days ago.

Data less than 1 MB is not displayed in the graph. This could result in an empty graph if all data points are less than 1 MB.
- A table to the right of the graph displaying the number of:
  - **Files (> 180 days)** - The number of files accessed more than 180 days
  - **Files Size (> 180 days)** - The size of the files accessed more than 180 days ago.
  - **Files (< 30 days)** - The number of files less than 30 days old.
  - **Files Size (< 30 days)** - The size of the files less than 30 days old.
- **Age Distribution** combo box. You can change this page to display information according to when the files were last modified or created. Select one of the options and click **Submit**.
- A table under the graph displaying the number of files accessed within the specified time period and the size of those files.

To view aging properties for individual files, see "[Viewing Aging Properties for Individual Files](#)" on page 30.

## Viewing Aging Properties for Individual Files

To view a listing of files with a particular age attribute, do the following:

1. Click the one of the following headings in the table on the Age tab for a file server.
  - 0-30 days
  - 30-60 days
  - 60-90 days
  - 90-180 days

The files that meet the criteria are listed.

2. Click a volume.
3. Click one of the following for the criteria you want.
  - 0-30 days
  - 30-60 days
  - 60-90 days
  - 90-180 days

The files that meet the criteria are listed.

4. To filter the list of files, type an attribute that the files must have to be displayed, such as a directory name. Then, click the **Submit** button.
5. To save the aging details to a comma-separated list (CSV file), click the **Save Aging Details** button.

## Viewing Events for a File Server

The Events tab lists the events that involve the file server. It provides the following information about the events:

- **ID**- The identification number assigned to the event
- **Severity** - Provides the severity level
- **Time** - The time the event was recorded.
- **Summary Text** - A brief explanation of the event. When you click the summary text, the details of the event are displayed.

You can access the Events tab by doing the following:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Expand the **Applications** node in the tree in Application Viewer.
3. Expand the **File Servers** node.
4. Click a file server name in the tree.
5. Click the **Events** tab in the right pane.

---

**NOTE:** Events listed on this page may not be attributed to the correct source until Getting Details has completed.

---

## Viewing Event Details

To access event details, click the link for the event under the Summary Text column. You can also right-click an event and select **Event Details** from the drop down menu.

The Event Details pane provides information on one or more of the following:

- **Serial Number** - The number assigned to the event
- **Summary Text** - A brief explanation of the event
- **Element** - It is the source of the event. An element can be a switch, host, application, fabric or anything else on the network. If this field is blank, the event did not come from an element.
- **Source** - If the event came from an element, the name of the element is provided.
- **Time Reported** - The time the event was reported to the management server.
- **Probable Cause** - Provides an explanation of a probable cause.
- **Recommended Actions** - Provides recommendations.
- **Event Type** - Provides a description of the event.
- **Correlated Indications** - Information obtained from the provider.
- **Severity** - Provides the severity level, which can be one of the following:
  - **Clear**
  - **Unknown**
  - **Informational**
  - **Warning**
  - **Minor**
  - **Major**
  - **Critical**
- **Journal Entries** - Use this field to enter additional information and then click **Add Journal Entry**. This field is limited to 4,000 characters.

## Sorting Events

To sort events, click the column title corresponding to the attribute you want to sort the event. For example if you want to sort events by time, click the Time heading on the table on the Events tab. The events are sorted by time on the Events page.

## Viewing Report Collectors for a File Server

You can view reports pertaining to the file server by accessing the Reports tab, as described in the following steps:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Expand the **Applications** node in the tree in Application Viewer.

3. Expand the **File Servers** node.
4. Click a file server name in the tree.
5. Click the **Reports** tab in the right pane.
6. To learn more about reports, see "[About Reports for File System Viewer](#)" on page 2.
7. The management server uses collectors to gather information. The Reports tab provides information about the collectors for a particular element.

To start collectors and view reports for an element:

1. To change a collector's start time, modify the time and date entered in the **Start Time** field. If you decide to change the start time, make sure the date is in the yyyy-mm-dd format with the time resembling a 24-hour clock. There should be a space between the date and the time, as shown below:

2003-08-20 09:41

2. To change how often the collector runs, type the number of minutes in the **Interval** field.

---

**IMPORTANT:** Do not make the interval too short. Running a collector too frequently uses up space on the management server and impacts its performance.

---

3. To enable the collector, click the **Start** button.
4. To stop a collector, click the **Stop** button.
5. To view a report, click its link. See "[About Reports for File System Viewer](#)" on page 2. Refer to the User Guide to learn how to enable reports for just one file server.

## Viewing Policies for a File Server

Policy Manager can automatically send an e-mail, generate an event, or run a custom script when the file server is being overused. For example, you can configure Policy Manager so you receive an e-mail message when the amount of free space on a file server decreases to a specified level.

Use the Policy tab to do the following:

- Add Policies
- Edit Policies
- Test Policies
- Delete Policies

You can access the Policies tab by doing the following:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Expand the **Applications** node in the tree in Application Viewer.
3. Expand the **File Servers** node.
4. Click a file server name in the tree.
5. Click the **Policies** tab in the right pane.

See "[Policies for File System Viewer](#)" on page 2 for more information.



## Finding Individual Volume Details

To find volume details for a volume on a file server:

1. Click **Tools > Storage Essentials > Application Viewer**.
2. Expand the **Applications** node in the tree in Application Viewer.
3. Expand the **File Servers** node.
4. Click a file server name in the tree.
5. Click the **Volumes** tab in the right pane.
6. Click a volume under the Volume column.

You are shown the File System Info tab.

This page displays the following:

- A summary table to the right of the graph displaying the following:
  - **Capacity** - The size of the volume
  - **Used** - The amount of used space on the volume
  - **Free** - The amount of free space on the volume
  - **Used Percentage** - Percentage of used space on the volume
  - **Free Percentage** - Percentage of free space on the volume
  - **File System** - Type of the file system on the volume
  - **Number of Files** - Total number of files on the volume
  - **Number of Directories** - Total number of file on the volume
- A table below the graph displaying the volume and its following properties:
  - **Users** - Number of user that exist on the volume
  - **User size** - Size of the all users that exist on that volume
  - **Groups** - Number of groups that exist on the volume
  - **Group size** - Size of the all groups that exist on that volume

Data less than 1 MB is not displayed in the graph.



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